

**North Atlantic Right Whale Sighting Survey (NARWSS)
and Right Whale Sighting Advisory System (RWSAS)
2003 Results Summary**

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This volume is part of a larger document containing five separate results summaries for five separate years. There is no analysis across the years included in this volume. This is the first publication of the collected data; future reports will be published annually in separate volumes.

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B. North Atlantic Right Whale Sighting Survey (NARWSS) and Right Whale Sighting Advisory System (RWSAS) 2003 Results Summary

by Brenda K. Rone, Timothy V.N. Cole, Peter Duley and Misty Nelson

Overview – The North Atlantic Right Whale Sighting Survey (NARWSS) is a NOAA Fisheries program which locates and records the seasonal distribution of right whales off the northeastern United States. The Right Whale Sighting Advisory System (RWSAS) is designed to reduce collisions between ships and right whales by alerting mariners to the presence of the right whales via fax, email, the Internet, Broadcast Notice to Mariners (BNM), NOAA Weather Radio, and the Mandatory Ship Reporting system (MSR). These reports are obtained from a variety of sources including the NARWSS, whale watch vessels, Coast Guard, fishing vessels, commercial ships, and the general public. The results from both the NARWSS and the RWSAS programs in 2003 are summarized in the following tables and figures.

Table 1 – This table provides information on: (a) the total number of the NARWSS flight hours accomplished in each month during 2003; (b) the number of the NARWSS flights conducted in each month, by survey type; and (c) the total number of right whales sighted on all the NARWSS flights during each month in 2003. There were three primary types of surveys flown: (1) broadscale; (2) focused surveys in the Great South Channel (GSC) region; and (3) focused surveys over potential and realized Dynamic Area Management (DAM) closure zones. Broadscale surveys were flown along systematic east-west track lines that covered all Federal waters west of the Hague Line, from south of Long Island, New York, to Eastport, Maine. These surveys were flown to obtain a synoptic view of the distribution of right whales off the northeastern Atlantic coast; a completed series indicates coverage of the entire area. Surveys focused in the GSC served the dual purpose of providing commercial shipping traffic with the current locations of right whale aggregations, and obtaining photographic data of individual right whales for use in vital rate models of the population. DAM confirmation flights included flights made to investigate reported sightings of right whale aggregations outside existing closures, as well as to monitor the duration of residence of aggregations within established DAM zones.

Figure 1 – This figure shows, by season, all the NARWSS survey track lines and right whale sighting locations in 2003. Seasonal right whale closure areas in effect during each period are shown as bold lines. The duration of each closure area is as follows: Cape Cod Bay: Jan 1 - May 15; Great South Channel: April 1 - June 30; Seasonal Area Management (SAM) West: March 1 - April 30; Seasonal Area Management (SAM) East: May 1 - July 31.

Table 2 – This table lists the number of right whale sightings reported to the RWSAS in 2003, by reporting source, and indicates the number of unconfirmed and late reports by source. Unconfirmed reports did not produce an alert. Late reports generated an alert when it was likely that the reported location would continue to be occupied by right whales. Often sightings were combined into a single alert. A total of 134 alerts were broadcast to mariners in 2003.

Figure 2a – This figure depicts the total number of right whale sightings reported to the RWSAS in 2003, by month and source, in the Northeast (*i.e.*, from Maine through New York) and Canada region.

Figure 2b – This figure depicts the total number of right whale sightings reported to the RWSAS in 2003, by month and source, in the Mid-Atlantic region (*i.e.*, from New Jersey through North Carolina).

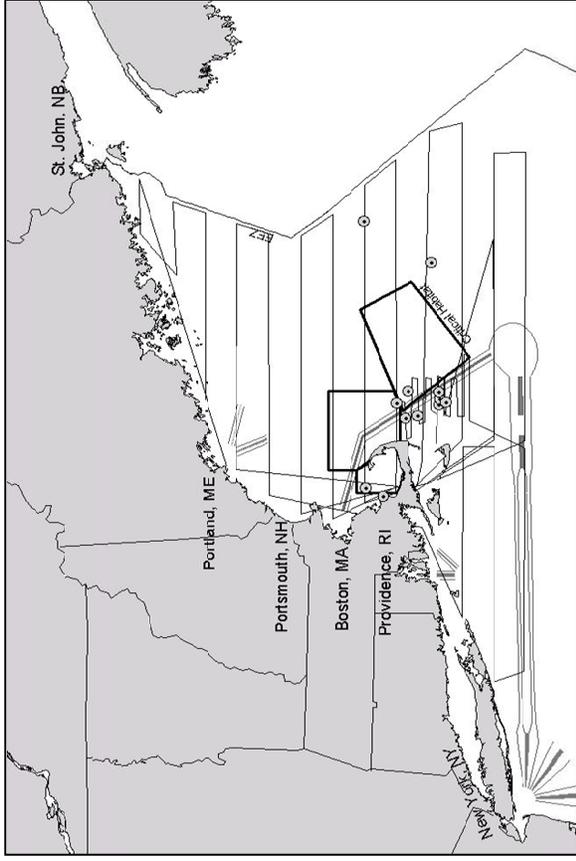
Figure 3 – This figure illustrates the locations of all right whale sightings reported to the RWSAS in 2003 in the Northeast and Canada region (excluding unconfirmed reports). The number of whales reported in each sighting is indicated via graduated symbols for each reporting source. Shipping lanes, the Hague Line and the Cape Cod Bay and Great South Channel Critical Habitat areas are included for reference.

Table 1. Summary of the flight hours and flight types for 2003 NARWSS flights

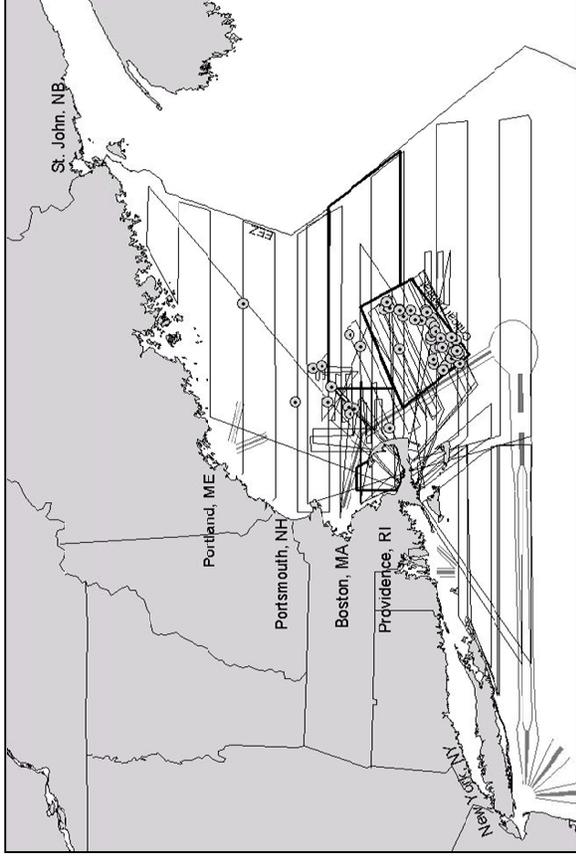
Month in 2003	Flight hours	# Flights*			Broadscale series completed	GSC surveys completed	DAM confirmation flights
		<i>broadscale</i>	<i>focused</i>	<i>other</i>			
April	43	7	2	1	1	1	0
May	111	15	6	1	1	4	1
June	118	17	6	0	1	4	2
July	59	7	5	0	1	0	3
August	42	0	10	0	0	0	0
September	26	5	1	0	0	0	0
October	59	11	0	1	1	0	0
November	24	2	3	0	1	0	0
December	3	0	1	0	0	0	1
Totals	485	64	34	3	6	9	7

*Flights that had both broadscale and focused survey time were counted as broadscale flights. Of the focused flights, 13 were strictly 'management' flights totaling 45 hours; these included DAM confirmations, disentanglement support, and carcass checks. Other flights included salmon pen photography, an oil spill flight, and a seal survey. The month of August was a dedicated photogrammetry project in the Bay of Fundy.

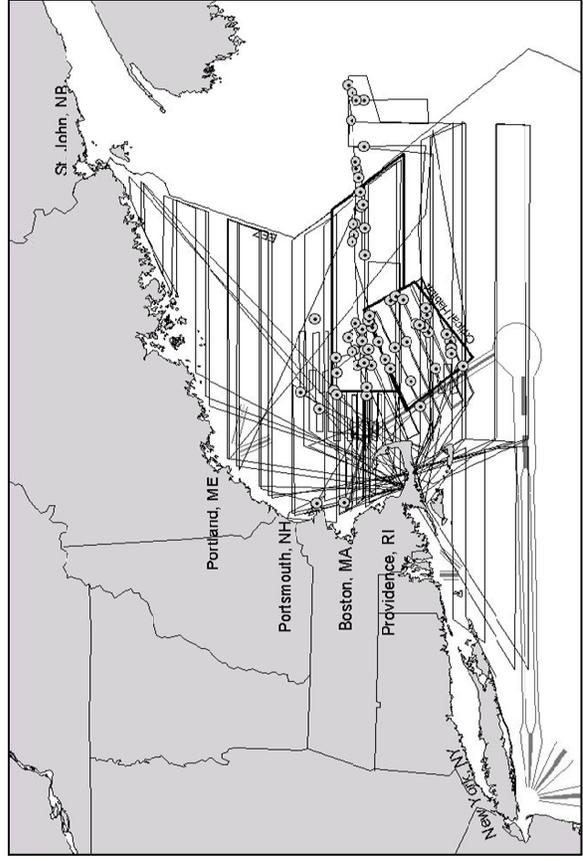
Figure 1. Completed track lines and right whale sighting locations for 2003 NARWSS flights, separated by season. Thin lines represent track lines and bull's eyes represent right whale sighting locations.



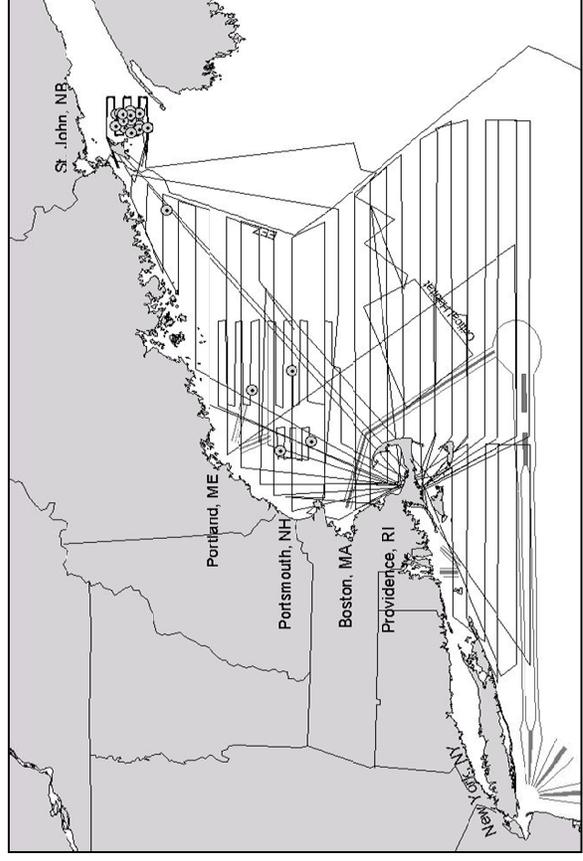
April 2003



May 2003



June - July 2003



August - December 2003

Table 2. Total sightings reported to the RWSAS in 2003

Source	# of Reports	Unconfirmed	Late
Aerial Survey	131	0	1
Shipboard Survey	42	0	6
Whale Watch	91	0	4
Opportunistic	52	7	7
Coast Guard	22	2	3
Commercial Ship	3	0	0
Fishing Vessel	4	1	3
Totals	345	10	24

Figure 2. Sightings reported to the RWSAS in 2003 by source, month and region

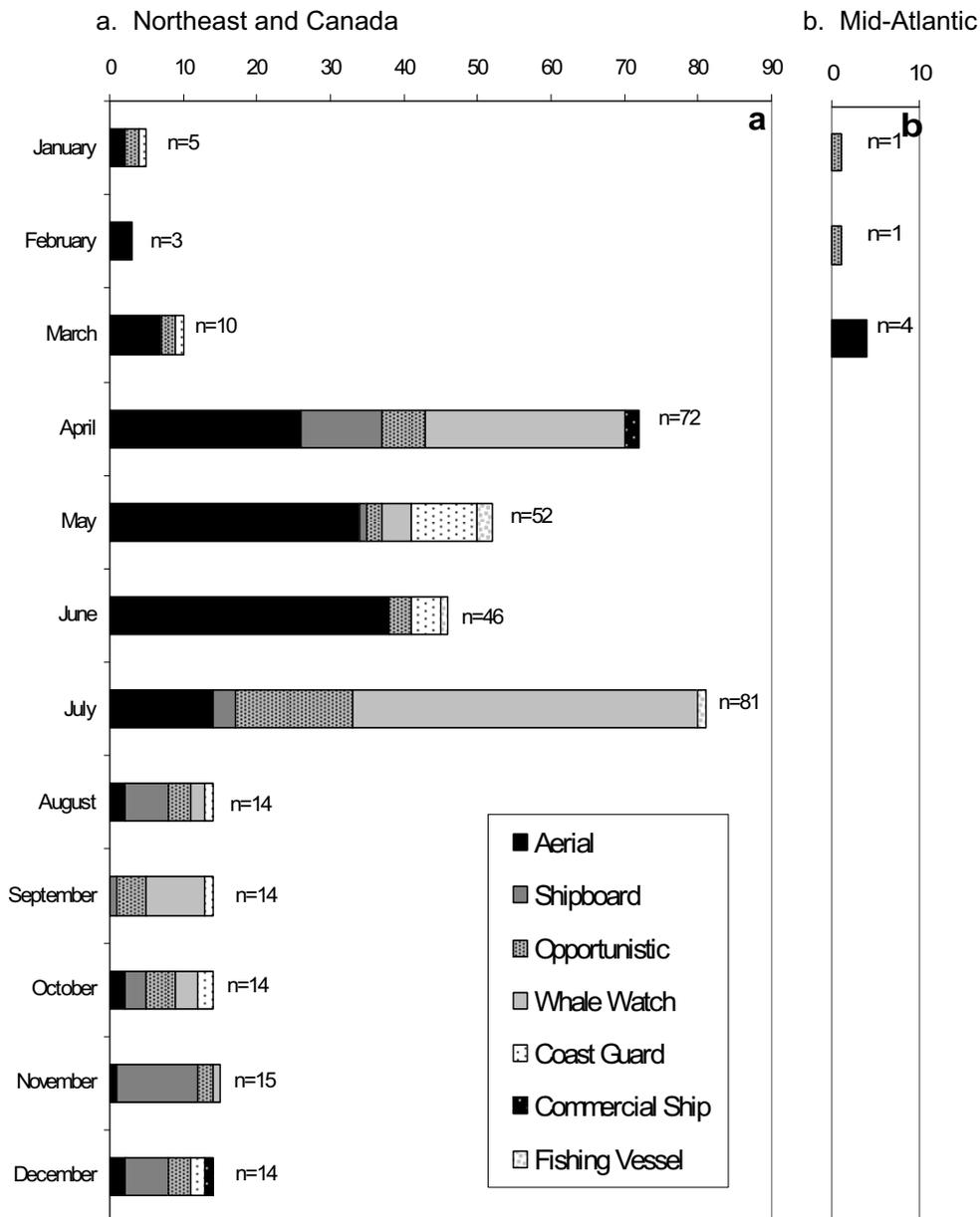


Figure 3. Map of sightings reported to the RWSAS in 2003 in the Northeast region and Canadian waters

